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Reflection-proof optical element - has transparent plastic base with fluorine-contg. organic polysiloxane-based thin film layer

Patent Assignee: TORAY IND INC (TORA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
JP 63021601	A	19880129	JP 86165531	A	19860716		198810 B

Priority Applications (No Type Date): JP 86165531 A 19860716

Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
JP 63021601	A		9			

Abstract (Basic): JP 63021601 A

The reflection-proofed optical element is characterised by having, on (a) transparent plastic base with 1.52 or greater refractive index, (b) a fluorine-contg. organic polysiloxane-based thin film layer with thickness of 10-500 nm and refractive index at least by 0.02 lower than that of the plastic base.

The fluorinated polysiloxane is pref. a polymer of fluorinated organosilicon cpd. of general formula (R<sub>1</sub>Q)SiX<sub>a</sub>Y<sub>3-a</sub> (I) and/or its hydrolysate. In (I) R<sub>1</sub> is 1-20C fluorinated alkyl gp. which may have one or more ether or ester linkage(s); Q is bivalent organic gp.; X is lower alkyl; Y is halogen, alkoxy, RCOO- where R is hydrogen or lower alkyl. The plastic base may be undercoated with a transparent coating layer contg. fine particles of inorganic oxide and having a refractive index not lower than 1.52. The optical element is produced pref. by coating the plastic base, which may have an undercoating layer, with a liq. compsn. contg. (I) and/or its hydrolysate, followed by curing at elevated temps.

USE/ADVANTAGE - The optical element combines excellent reflection-proofness with high surface hardness and improved physical strength. It permits dyeing, and is applicable to sun glass use, etc.

Title Terms: REFLECT; PROOF; OPTICAL; ELEMENT; TRANSPARENT; PLASTIC; BASE; FLUORINE; CONTAIN; ORGANIC; POLYSILOXANE; BASED; THIN; FILM; LAYER

Derwent Class: A26; A89; P81

International Patent Class (Additional): C08J-007/04; G02B-001/10

File Segment: CPI; EngPI

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A12-L03

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473 477 516 521 522 523 55- 551 560 561 567 57& 575 596 597 600 601  
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